





UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/595,265	04/03/2006	Nicolas Droger	ESSR:112US/10604356	ESSR:112US/10604356 6405	
32425 ELU DRIGHT	7590 11/16/2007 & JAWORSKI L.L.P.	EXAM	EXAMINER		
600 CONGRE		·	NILAND, PATRICK DENNIS		
SUITE 2400 AUSTIN, TX 78701			ART UNIT	PAPER NUMBER	
1200121, 201	, . ,		1796		
				DEL HERVI VORE	
			MAIL DATE	DELIVERY MODE	
			11/16/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)				
Office Action Summers	10/595,265	DROGER ET AL.				
Office Action Summary	Examiner	Art Unit				
	Patrick D. Niland	1796				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).						
Status						
1) Responsive to communication(s) filed on 29 Au	aust 2007					
<u></u>	action is non-final.					
·—	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.						
Disposition of Claims						
4) Claim(s) 39-82 is/are pending in the application.						
4a) Of the above claim(s) is/are withdrawn from consideration.						
5) Claim(s) 76-81 is/are allowed.						
6)⊠ Claim(s) <u>39, 47-51, and 62-75</u> is/are rejected.						
7) Claim(s) 40-46,52-61 and 82 is/are objected to.						
8) Claim(s) are subject to restriction and/or election requirement.						
Application Papers						
9)☐ The specification is objected to by the Examiner	•.					
10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).						
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
Priority under 35 U.S.C. § 119						
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of:						
1. Certified copies of the priority documents have been received.						
2. Certified copies of the priority documents have been received in Application No						
3. Copies of the certified copies of the priority documents have been received in this National Stage						
application from the International Bureau (PCT Rule 17.2(a)).						
* See the attached detailed Office action for a list of the certified copies not received.						
Attachment(s)						
1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413)						
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) Paper No(s)/Mail Date 3) Information Disclosure Statement(s) (PTO/SB/08) 5) Notice of Informal Patent Application						
3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date	6) Other:	rai Faterit Application				

Application/Control Number: 10/595,265 Page 2

Art Unit: 1796

1. The amendment of 8/29/07 has been entered. Claims 39-82 are pending.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claims 39, 47-51, and 62-75 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat. No. 4686250 Qureshi.

Qureshi discloses antiplasticized thermosets which may contain S in the matrices. See the abstract; column 2, lines 54-68, particularly X of the formula; column 3, line 1 showing that X can be S; column 8, lines 66-68 particularly antiplasticizers and their effect; column 9, lines 1-10. Claims 48, 62-72 are interpreted as not requiring a polythiourethane matrix. Since the antiplasticizers disclosed by the patentee appear to fall within the scope of those of the instant claims, they are expected to necessarily and inherently possess the instantly claimed properties of claims 47-50, 73-775. Dibutylphthalate is a carbonyl derivative of claim 51. The amounts of column 9, lines 29-33 fall within the scope of the instant claims 62-72, interpreted as not requiring polythiourethanes.

The applicant argues "a person of ordinary skill in the art would understand what a derivative is in the context of the present specification and how such a derivative can be made and used without undue experimentation". This admission of the skill of the ordinary skilled artisan is taken to be such that the ordinary skilled artisan can choose the components from the relatively small list of components of the patentee's disclosure, particularly when one considers modern assaying techniques and computerization/automation thereof, without there being too much picking and choosing, since it is within the ability of the ordinary skilled artisan to understand how to make and use undisclosed derivatives, it is clearly within the ability of the ordinary skilled artisan to choose those disclosed compounds of the patentee given the specificity with which these compounds are disclosed by the patentee.

Furthermore, 20% of the choices of X are S. See MPEP 2131.02 "A GENERIC CHEMICAL FORMULA WILL ANTICIPATE A CLAIMED SPECIES COVERED BY THE FORMULA WHEN THE SPECIES CAN BE "AT ONCE ENVISAGED" FROM THE FORMULA

When the compound is not specifically named, but instead it is necessary to select portions of teachings within a reference and combine them, e.g., select various substituents from a list of alternatives given for placement at specific sites on a generic chemical formula to arrive at a specific composition, anticipation can only be found if the classes of substituents are sufficiently limited or well delineated. Ex parte A, 17 USPQ2d 1716 (Bd. Pat. App. & Inter. 1990). If one of ordinary skill in the art is able to "at once envisage" the specific compound within the generic chemical formula, the compound is anticipated. One of ordinary skill in the art must be able to draw the structural formula or

Art Unit: 1796

write the name of each of the compounds included in the generic formula before any of the compounds can be "at once envisaged." One may look to the preferred embodiments to determine which compounds can be anticipated. In re Petering, 301 F.2d 676, 133 USPQ 275 (CCPA 1962).

In In re Petering, the prior art disclosed a generic chemical formula "wherein X, Y, Z, P, and R'- represent either hydrogen or alkyl radicals, R a side chain containing an OH group." The court held that this formula, without more, could not anticipate a claim to 7methyl-9-[d, l'-ribityl]-isoalloxazine because the generic formula encompassed a vast number and perhaps even an infinite number of compounds. However, the reference also disclosed preferred substituents for X, Y, Z, R, and R' as follows: where X, P, and R' are hydrogen, where Y and Z may be hydrogen or methyl, and where R is one of eight specific isoalloxazines. The court determined that this more limited generic class consisted of about 20 compounds. The limited number of compounds covered by the preferred formula in combination with the fact that the number of substituents was low at each site, the ring positions were limited, and there was a large unchanging structural nucleus, resulted in a finding that the reference sufficiently described "each of the various permutations here involved as fully as if he had drawn each structural formula or had written each name." The claimed compound was 1 of these 20 compounds. Therefore, the reference "described" the claimed compound and the reference anticipated the claims.

In In re Schauman, 572 F.2d 312, 197 USPQ 5 (CCPA 1978), claims to a specific compound were anticipated because the prior art taught a generic formula embracing a

Art Unit: 1796

limited number of compounds closely related to each other in structure and the properties possessed by the compound class of the prior art was that disclosed for the claimed compound. The broad generic formula seemed to describe an infinite number of compounds but claim 1 was limited to a structure with only one variable substituent R. This substituent was limited to low alkyl radicals. One of ordinary skill in the art would at once envisage the subject matter within claim 1 of the reference.)."

Therefore, since 20% of the compounds of the reference may have the instantly claimed S and by definition of "hardeners" these later end up in the instantly claimed 3D matrix, the instantly claimed matrix is disclosed with sufficient specificity so as to be anticipated.

Column 8, lines 66-68 et seq. clearly discloses the instantly claimed antiplasticizers and their purpose for use in all of the previous compositions. Thus, one desiring antiplasticization was taught its use in all of the matrices of the patentee with sufficient specificity so as to anticipate the instant claims and have a reasonable expectation of successfully antiplasticizing the S containing matrices of the patentee. This rejection is maintained for these reasons and the clear teachings of the patentee.

7. Claims 39, 47-51, and 62-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 4686250 Qureshi.

Qureshi discloses antiplasticized thermosets which may contain S in the matrices. See the abstract; column 2, lines 54-68, particularly X of the formula; column 3, line 1 showing that X can be S; column 8, lines 66-68 particularly antiplasticizers and their effect; column 9, lines 1-10. Claims 48, 62-72 are interpreted as not requiring a polythiourethane matrix. Since the antiplasticizers disclosed by the patentee appear to fall within the scope of those of the instant

Art Unit: 1796

claims, they are expected to necessarily and inherently possess the instantly claimed properties of claims 47-50, 73-775. Dibutylphthalate is a carbonyl derivative of claim 51. The amounts of column 9, lines 29-33 fall within the scope of the instant claims 62-72, interpreted as not requiring polythiourethanes.

It would have been obvious to one of ordinary skill in the art at the time of the instantly claimed invention to use the S in the thermosets of the patentee and antiplasticizers to obtain the benefits of each of these ingredients known to the ordinary skilled artisan in the final composition of the patentee.

The applicant argues "a person of ordinary skill in the art would understand what a derivative is in the context of the present specification and how such a derivative can be made and used without undue experimentation". This admission of the skill of the ordinary skilled artisan is taken to be such that the ordinary skilled artisan can choose the components from the relatively small list of components of the patentee's disclosure, particularly when one considers modern assaying techniques and computerization/automation thereof, without there being too much picking and choosing, since it is within the ability of the ordinary skilled artisan to understand how to make and use undisclosed derivatives, it is clearly within the ability of the ordinary skilled artisan to choose those disclosed compounds of the patentee given the specificity with which these compounds are disclosed by the patentee.

Furthermore, 20% of the choices of X are S. See MPEP 2131.02 "A GENERIC CHEMICAL FORMULA WILL ANTICIPATE A CLAIMED SPECIES COVERED BY THE FORMULA WHEN THE SPECIES CAN BE "AT ONCE ENVISAGED" FROM THE FORMULA

Art Unit: 1796

When the compound is not specifically named, but instead it is necessary to select portions of teachings within a reference and combine them, e.g., select various substituents from a list of alternatives given for placement at specific sites on a generic chemical formula to arrive at a specific composition, anticipation can only be found if the classes of substituents are sufficiently limited or well delineated. Ex parte A, 17 USPQ2d 1716 (Bd. Pat. App. & Inter. 1990). If one of ordinary skill in the art is able to "at once envisage" the specific compound within the generic chemical formula, the compound is anticipated. One of ordinary skill in the art must be able to draw the structural formula or write the name of each of the compounds included in the generic formula before any of the compounds can be "at once envisaged." One may look to the preferred embodiments to determine which compounds can be anticipated. In re Petering, 301 F.2d 676, 133 USPQ 275 (CCPA 1962).

In In re Petering, the prior art disclosed a generic chemical formula "wherein X, Y, Z, P, and R'- represent either hydrogen or alkyl radicals, R a side chain containing an OH group." The court held that this formula, without more, could not anticipate a claim to 7-methyl-9-[d, l'-ribityl]-isoalloxazine because the generic formula encompassed a vast number and perhaps even an infinite number of compounds. However, the reference also disclosed preferred substituents for X, Y, Z, R, and R' as follows: where X, P, and R' are hydrogen, where Y and Z may be hydrogen or methyl, and where R is one of eight specific isoalloxazines. The court determined that this more limited generic class consisted of about 20 compounds. The limited number of compounds covered by the preferred formula in combination with the fact that the number of substituents was low at each site,

Art Unit: 1796

the ring positions were limited, and there was a large unchanging structural nucleus, resulted in a finding that the reference sufficiently described "each of the various permutations here involved as fully as if he had drawn each structural formula or had written each name." The claimed compound was 1 of these 20 compounds. Therefore, the reference "described" the claimed compound and the reference anticipated the claims.

In In re Schauman, 572 F.2d 312, 197 USPQ 5 (CCPA 1978), claims to a specific compound were anticipated because the prior art taught a generic formula embracing a limited number of compounds closely related to each other in structure and the properties possessed by the compound class of the prior art was that disclosed for the claimed compound. The broad generic formula seemed to describe an infinite number of compounds but claim 1 was limited to a structure with only one variable substituent R. This substituent was limited to low alkyl radicals. One of ordinary skill in the art would at once envisage the subject matter within claim 1 of the reference.)."

Therefore, since 20% of the compounds of the reference may have the instantly claimed S and by definition of "hardeners" these later end up in the instantly claimed 3D matrix, the instantly claimed matrix is disclosed with sufficient specificity so as to be anticipated.

Column 8, lines 66-68 et seq. clearly discloses the instantly claimed antiplasticizers and their purpose for use in all of the previous compositions. Thus, one desiring antiplasticization was taught its use in all of the matrices of the patentee with sufficient specificity so as to anticipate the instant claims and have a reasonable expectation of successfully antiplasticizing the S containing matrices of the patentee. This rejection is maintained for these reasons and the clear

Art Unit: 1796

teachings of the patentee. There is no showing of unexpected result commensurate in scope with the instant claims and the cited prior art over the clear teachings of the patentee.

8. Claims 40-46, 52-61, and 82 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The inventions of these claims are not disclosed in the prior art considered and the prior art considered does not provide motivation to modify their teachings into the instantly claimed inventions.

- 9. Claims 76-81 are allowable over the prior art considered.
- 10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick D. Niland whose telephone number is 571-272-1121. The examiner can normally be reached on Monday to Thursday from 10 to 5.

Application/Control Number: 10/595,265 Page 10

Art Unit: 1796

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patrick D. Niland Primary Examiner Art Unit 1714